Principles of Science:

- We ask questions
- We explore and investigate
- We use scientific vocabulary
- We make links with other subjects
- We have fun!

Topic Overview: Sound

Pupils should explore and identify the way sound is made through vibration in a range of different musical instruments from around the world and find out how the pitch and volume of sounds can be changed in a variety of ways.

garden ponds, and the negative effects of population and development, litter or deforestation.

SCIENCE Year 4

Autumn 2

Focus scientists:

Scientists in residence at the Natural History Museum

Objectives:

- Identify how sounds are made, associating some of them with something vibrating
- Recognise that vibrations from sounds travel through a medium to the ear
- Find patterns between the pitch of a sound and features of the object that produced it
- Find patterns between the volume of a sound and the strength of the vibrations that produced it
- Recognise that sounds get fainter as the distance from the sound source increases.

Work scientifically by:

- Finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses.
- Making earmuffs from a variety of different materials to investigate which provides the best insulation against sound.
- Making and playing their own instruments by using what they have found out about pitch and volume.

Writing opportunities:

The adventures of the sound wave

Key vocabulary:

vibration   pitch   sound

wave   volume

frequency   medium

auditory   particle

sound source   ear drum

vibrate   cochlea

hammer   anvil   stirrup

auditory nerve   brain

amplitude   transmit

absorb

Learning Outcomes/ Assessment

Emerging	Secure	Exceeding
• *Observe object/living things/event and comment on it* • *Notice similarities and differences in order to group and compare objects, living things and events* • *Link cause and effect; recognise patterns and relationships* • *Give simple explanations, mostly using everyday*	• *Show understanding of a concept by using scientific vocabulary correctly* • *Apply knowledge in familiar related contexts*	• *Create links to other curriculum areas* • *Apply knowledge in unfamiliar context*